

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-SW-36-AD; Amendment 39-13401; AD 2003-26-04]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Model A109E Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Agusta S.p.A. (Agusta) Model A109E helicopters. This action requires certain inspections of the rod-end of the main rotor head damper for freedom of movement, and depending on the torque required to move the rod-end, either further inspection for a crack or replacing the rod-end. This amendment is prompted by reports of rod-end fractures due to fatigue failure resulting in increased helicopter vibrations. This condition, if not corrected, could result in failure of the rod-end, extreme vibrations, and a subsequent forced landing or loss of control of the helicopter.

DATES: Effective January 15, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 15, 2004.

Comments for inclusion in the Rules Docket must be received on or before March 1, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2003-SW-36-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

The service information referenced in this AD may be obtained from Agusta, 21017 Cascina Costa di Samarate (VA) Italy, Via Giovanni Agusta 520, telephone 39 (0331) 229111, fax 39 (0331) 229605-222595. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Richard Monschke, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5116, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: The Ente Nazionale per l'Aviazione Civile (ENAC), the airworthiness authority for Italy, notified the FAA that an unsafe condition may exist on Agusta Model A109E helicopters. The ENAC advises that inspections of the rod-end should be carried out as called for by the manufacturer's service information.

Agusta has issued Bollettino Tecnico (BT) No. 109EP-37, dated July 15, 2003; BT No. 109EP-37, Revision A, dated July 30, 2003; and Errata Corrige, dated September 2, 2003; which specify an inspection of each damper rod-end assembly, part number (P/N) Microtecnica 3637GR85, for seizure or a crack. Agusta reports rod-end fractures due to fatigue failure originating from the thread under cut of the rod-end resulting in increased helicopter vibrations. Also, during the first few hours of operation, the rotational torque of the spherical bearing increases generating additional loads on the rod-end. ENAC has classified this BT as mandatory and issued AD Nos. 2003-231, dated July 18, 2003, and 2003-249, dated August 1, 2003, to ensure the continued airworthiness of these helicopters in Italy.

This helicopter model is manufactured in Italy and is type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, ENAC has kept the FAA informed of the situation described above. The FAA has examined the findings of ENAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

This unsafe condition is likely to exist or develop on other helicopters of the same type design registered in the United States. Therefore, this AD is being issued to prevent failure of the rod-end, extreme vibration, and a subsequent forced landing or loss of control of the helicopter. This AD requires the following:

- Within 25 hours time-in-service (TIS), inspect the rod-end to determine if it can be rotated by hand.
- If the rod-end can be rotated by hand, no further action is required.
- If the rod-end cannot be rotated by hand, determine the torque value required to rotate it by use of a torque wrench.
- If the torque value is less than 20 Newton-meter (Nm) (177 in-lb) within 25 hours TIS, inspect the rod-end for a crack by a magnetic particle inspection. If a crack is found, replace the rod-end assembly with an airworthy part before further flight.
- If the torque value is 20 Nm or more, replace the rod-end assembly with an airworthy part before further flight.

The actions must be done using the BT 109EP-37, Revision A, as amended by the Errata Corrige, described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability of the helicopter. Therefore, within 25 hours TIS, inspecting the rod-end to determine if it can be rotated by hand is required. If the rod-end cannot be rotated by hand, determining the torque value required to rotate the rod end and, if necessary, replacing the rod-end assembly with an airworthy part before further flight are required, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that this AD will affect 34 helicopters of U.S. registry, and the required actions will take approximately 3 work hours per helicopter to accomplish at an average labor rate of \$65 per work hour. Required parts will cost approximately \$450 per helicopter. Based on these figures, we estimate the total cost of the AD on U.S. operators to be \$21,930 (\$645 per helicopter). However, Agusta states in its BT that it will supply the parts at no cost and will reimburse up to 2.5 work hours for each terminal at a fixed rate of \$40. Assuming the warranty coverage, the estimated total cost impact on U.S. operators would be \$3,230 (\$95 per helicopter).

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their mailed comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 2003-SW-36-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-26-04 Agusta S.p.A.: Amendment 39-13401. Docket No. 2003-SW-36-AD.

Applicability: Model A109E helicopters, with a main rotor head damper, part number (P/N) 109-0111-06-103, with a rod-end assembly, P/N 3637GR85, with a rod-end, P/N 3637-14, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the rod-end, extreme vibrations, and a subsequent forced landing or loss of control of the helicopter, accomplish the following:

(a) Within 25 hours time-in-service (TIS), inspect by hand the rod-end, P/N 3637-14, for freedom of movement around the spherical bearing, P/N 3637-40.

(1) If the rod-end can be rotated by hand, no further action is required by this AD.

(2) If the rod-end cannot be rotated by hand, by using a torque wrench, determine the torque required to rotate the rod-end around the spherical bearing by following the Compliance Instructions, Part I, paragraph 3.1, of Agusta Bollettino Tecnico No. 109EP-37, Revision A, dated July 30, 2003, as amended by the Errata Corrige, dated September 2, 2003 (BT).

(i) If the torque value is 20 or more Newton-meter (Nm) (177 in-lb), replace the rod-end assembly with an airworthy rod-end assembly containing a rod-end, P/N 3637-14, with the letters "T", "R", "RT", "TR", or "TRR" after the P/N, by following the Compliance Instructions, paragraphs 3.3.1. through 3.3.3., of the BT, except you are not required to return the removed rod-end assembly to Agusta.

(ii) If the torque value is less than 20 Nm, within the next 25 hours TIS, magnetic particle inspect the rod-end for a crack by following the Compliance Instructions, Part II, of the BT.

(A) If no crack is found, no further action is required by this AD.

(B) If a crack is found, replace the rod-end assembly with an airworthy rod-end assembly containing a rod-end, P/N 3637-14 with the letters "T", "R", "RT", "TR", or "TRR" after the P/N, by following the Compliance Instructions, paragraphs 3.3.1. through 3.3.3., of the BT, except you are not required to return the removed rod-end assembly to Agusta.

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Safety Management Group, Rotorcraft Directorate, FAA, for information about previously approved alternative methods of compliance.

(c) The inspections and replacement of the rod-end assembly must be done using Agusta Bollettino Tecnico No. 109EP-37, Revision A, dated July 30, 2003, as amended by the Errata Corrige, dated September 2, 2003. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained

from Agusta, 21017 Cascina Costa di Samarate (VA) Italy, Via Giovanni Agusta 520, telephone 39 (0331) 229111, fax 39 (0331) 229605-222595. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(d) This amendment becomes effective on January 15, 2004.

Note: The subject of this AD is addressed in Ente Nazionale per l'Aviazione Civile (Italy) AD Nos. 2003-231, dated July 18, 2003, and 2003-249, dated August 1, 2003.

Issued in Fort Worth, Texas, on December 15, 2003.

David A. Downey,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 03-31849 Filed 12-30-03; 8:45 am]

BILLING CODE 4910-13-P